



351318

Executive Summary

Film Recovery Systems of Elk Grove Village, Illinois began operation in 1980 and shut down operations in February 1983 as a result of an employee death. The company officially ceased operations and went out of business in May 1983.

The site occupies approximately 4 acres in the SE 1/4, NW 1/4 of Section 35, Township 41 North, Range 11 East in Cook County. Structures on this site include two buildings, the east building - served as a warehouse for unprocessed film and the west building - housed the process tanks.

Film Recovery Systems business was that of silver recovery from photographic and x-ray negatives. Chopped-up film (chips) was placed in one of 72-1000 gallon process tanks containing a cyanide solution. During the chips three day residence time in these tanks the cyanide bonds with the silver. The silver bearing solution is transferred to the plating tanks having approximately 135 gallons of capacity each where the silver is plated out on stainless steel. The metal is then smelted. The plastic film chips are removed from the process tanks, washed with a cyanide destruct solution containing water and sodium hypochlorite and removed from the plant. The chips were analyzed and found to contain approximately 30 parts per million (ppm) cyanide after washing. The process liquid was considered spent after about 6 months at which time it was suppose to be sent to an evaporator which evaporates the 1000 gallons in 24 hours. The remaining sludge is dried and sent for silver recovery at an off-site location. In actuality this liquid was loaded into a small tank truck, taken to a car/truck wash and allowed to run into the sewer system as the river "washed" the truck. Company officials and various drivers were eventually caught, fined and jailed.

Quality control appeared to be by spot check and haphazard at best. No continuous monitoring system was used on the cyanide destruct system. This may have been a factor in the death of an employee who worked in the process shop.

The disposal/storage of 16 million pounds (10 million at the Dixon site, 6 million at the Cook County sites) of plastic film chips (the waste from the recovery process) was accomplished by use of semi-trailers which were located at a number of different sites around the Chicago/Cook County area and two warehouses at one site in Dixon, Illinois. Film Recovery Systems leased trailers from different companies for various lengths of time. These trailers would be loaded with plastic chips in Elk Grove Village at F.R.S. and returned to the respective leasing company's storage yards where they remained until disposal could be arranged. The leasing companies representatives have indicated that F.R.S. was prompt with payment at the beginning of the lease but soon after would cease payment. Some companies were without payment after only 2 months. F.R.S. had stored chips on some sites for 2 years. The trailers being subjected to the elements, would eventually take in water through their roofs, percolate through the chips and seep from the trailer onto the ground. In one instance a trailer broke in half, spilling its contents on the ground. Most sites, however, had small blue puddles and stains beneath them. It appears that most of the liquid had remained on the particular sites' property either evaporating or being absorbed into the soil.

Proposals for final disposal of the film chips ranged from incineration to landfilling, however, none of the alternatives were implemented. The chips were removed from the trailers from all storage sites in the Cook County area and the warehouses in Dixon and either transported by track or railroad box car to an old strip mine site outside the city limits of Canton, Illinois where they remain as of this writing.

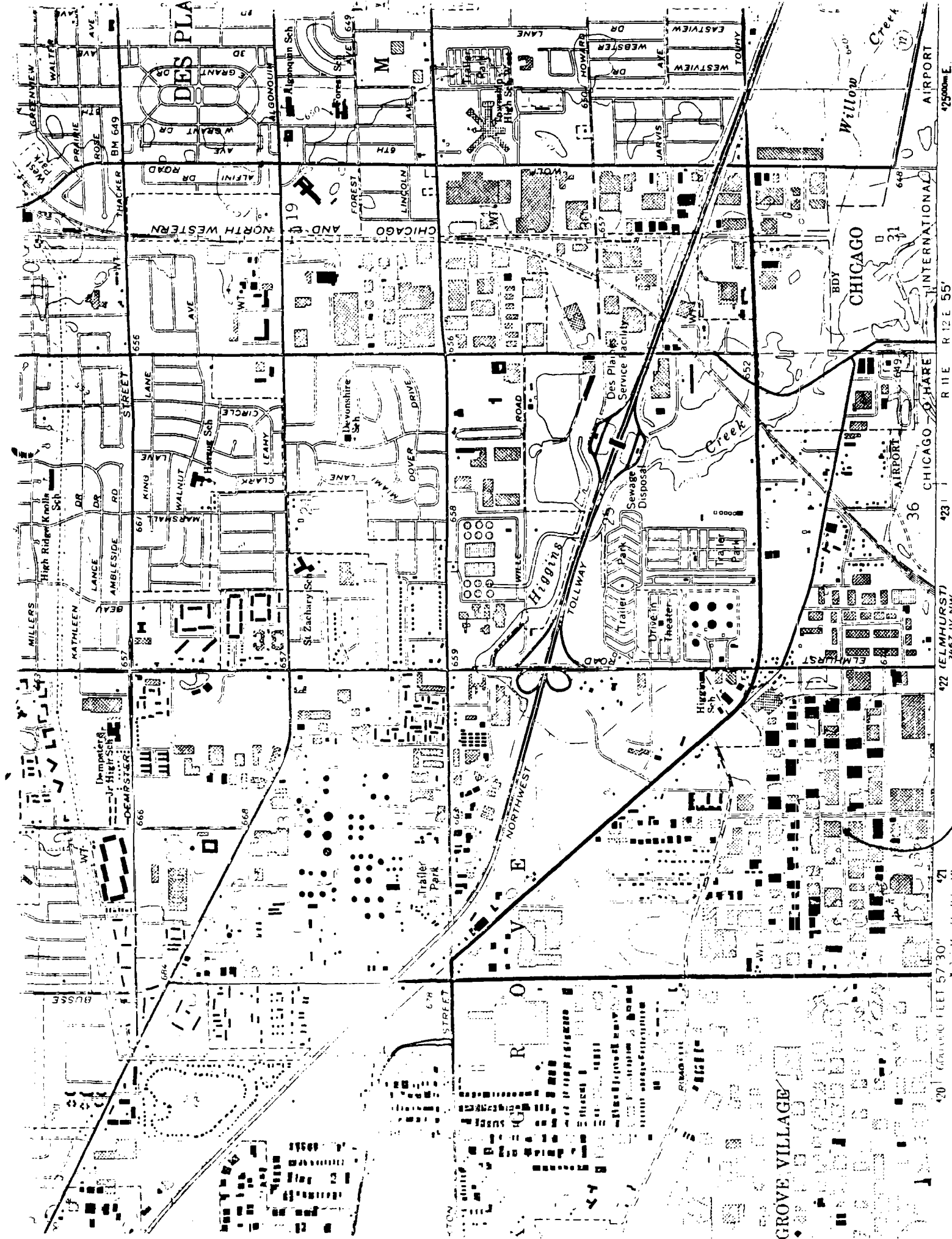
In light of the hazardous nature of the chips themselves, the processes involved and the poor management and "housekeeping" practices, this site is given a medium priority.

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FILM RECOVERY SITE

FILM RECOVERY SYSTEMS

<u>CHI</u>	<u>Q&A H&D</u>	<u>AGE TOTAL POP.</u>	<u>WITHIN 3 MILES POP. AFFECTED</u>
✓	1/2 DES PLAINES	53,568	- 26,784
✓	1/7 MOUNT PROSPECT	52,434	- 7,516
✓	1/2 ELK GROVE VILLAGE	28,907	- 14,454
✓	1/3 WOOD DALE	11,251	- 3,713
✓	1/2 BENSONVILLE	16,124	- 8,062
✓	1/4 ROSEMONT	4,137	- <u>1,034</u>
			61,563



FILM RECOVERY SYSTEMS

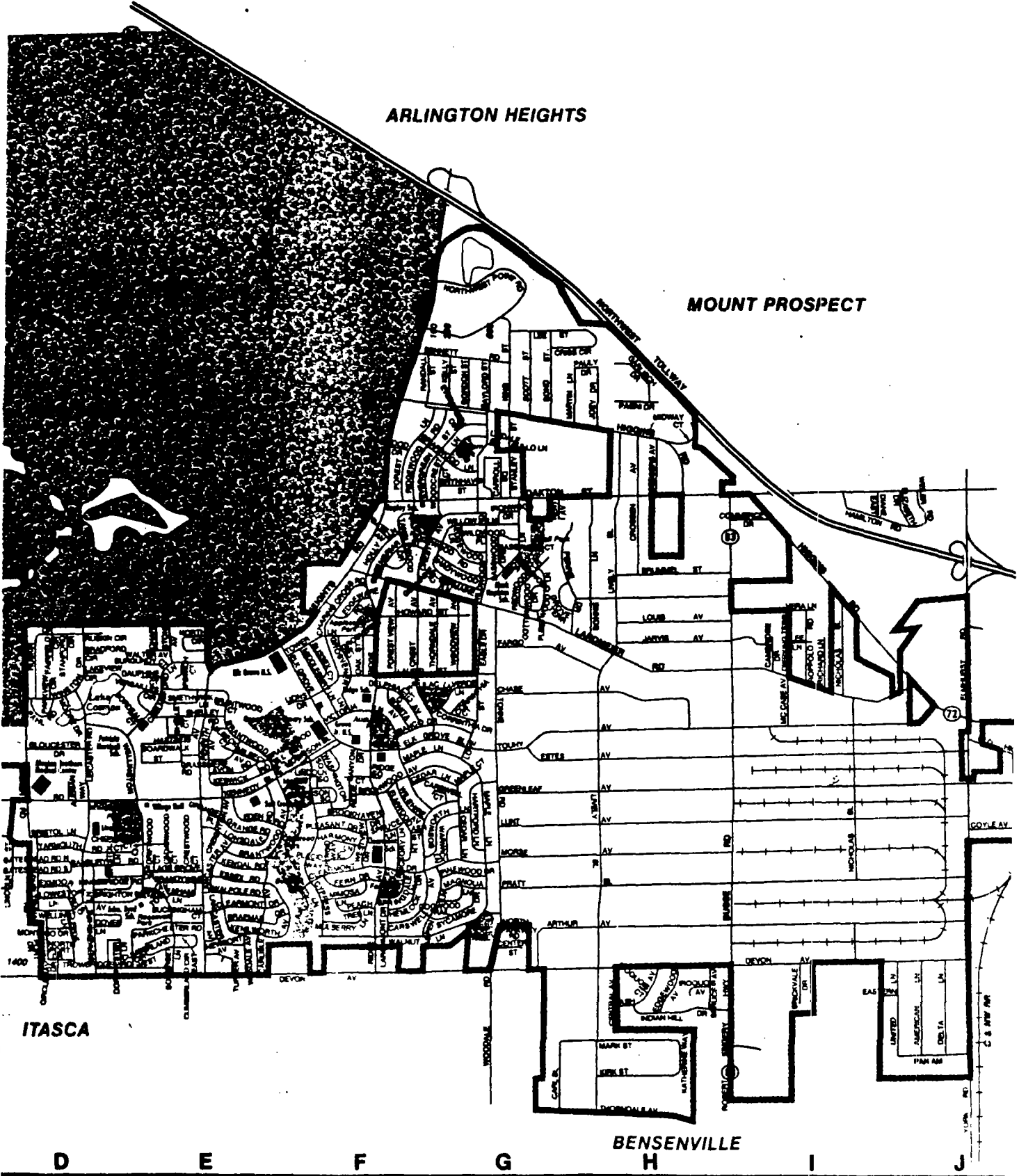
420' GRAVITY FEET 57' 30" 421' 422' (ELMHURST) 423' 424' 425' 426' 427' 428' 429' 430' 431' 432' 433' 434' 435' 436' 437' 438' 439' 440' 441' 442' 443' 444' 445' 446' 447' 448' 449' 450' 451' 452' 453' 454' 455' 456' 457' 458' 459' 460' 461' 462' 463' 464' 465' 466' 467' 468' 469' 470' 471' 472' 473' 474' 475' 476' 477' 478' 479' 480' 481' 482' 483' 484' 485' 486' 487' 488' 489' 490' 491' 492' 493' 494' 495' 496' 497' 498' 499' 500'

ELK GROVE VILLA

ROLLING MEADOWS

ARLINGTON HEIGHTS

MOUNT PROSPECT



ITASCA

BENSENVILLE